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Appl. No. 10/689,382
Response 22 February 2008
Reply to Examiner-Initiated Interview of 20 February 2008

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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for calculating a local mean number of tasks for each processing element (PE_r) in a parallel processing system, wherein each processing element (PE_r) has a local number of tasks associated therewith and wherein r represents the number for a selected processing element, said method being performed on at least a portion of the parallel processing elements within the processing system, said method comprising:
 - assigning a value (E_r) to said each processing element (PE_r);
 - summing a total number of tasks present on said parallel processing system and said value (E_r) for said each processing element (PE_r);
 - dividing the sum of said total number of tasks present on said parallel processing system and said value (E_r) for said each processing element (PE_r) by a total number of processing elements in said parallel processing system; and
 - truncating any fractional portion resulting from said dividing a fractional portion of said divided sum for said each processing element to produce said local mean.
2. (original) The method of claim 1 wherein said assigning a value (E_r) to said each processing element (PE_r) comprises setting said value (E_r) equal to a number between 0 and ($N - 1$), where N represents said total number of processing elements in said parallel processing system.
3. (original) The method of claim 2 wherein said assigning a value (E_r) to said each processing element (PE_r) further comprises giving a unique number to said each value (E_r) for said each processing element PE_r .

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4. (original) The method of claim 1 wherein said assigning a value (E_r) to said each processing element (PE_r) comprises setting said value (E_r) equal to said number for a selected processing element (r).
5. (previously presented) The method of claim 1 wherein said truncating is responsive to said value for E_r such that said total number of tasks for said parallel processing system equals the sum of said local mean number of tasks for each processing element (PE_r) in said parallel processing system.
6. (currently amended) The method of claim 1 wherein said local mean number of tasks for each processing element (PE_r) within said parallel processing system is equal to one either X or $(X+1)$ where X is equal to the local mean.
7. (cancelled)
8. (previously presented) The method of claim 1 wherein said method is performed on a line of said processing elements within said parallel processing system.
9. (previously presented) The method of claim 1 wherein said method is performed on a loop of said processing elements within said parallel processing system.
10. (previously presented) The method of claim 1 wherein said method is performed on an array of said processing elements within said parallel processing system.
11. (previously presented) The method of claim 1 wherein said method is performed on an array of two or more interconnected processing elements within said parallel processing system.
12. (currently amended) A computer readable memory device storing carrying a set of instructions which, when executed, perform a method for calculating a local mean number of tasks for each processing element (PE_r) in a parallel processing system, wherein each processing

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element (PE_r) has a local number of tasks associated therewith and wherein r represents the number for a selected processing element, said method being performed on at least a portion of the parallel processing elements within the processing system, said method comprising:

assigning a value (E_r) to said each processing element (PE_r);

summing a total number of tasks present on said parallel processing system and said value (E_r) for said each processing element (PE_r);

dividing the sum of said total number of tasks present on said parallel processing system and said value (E_r) for said each processing element (PE_r) by a total number of processing elements in said parallel processing system; and

truncating any fractional portion resulting from said dividing a fractional portion of said divided sum for said each processing element to produce said local mean.